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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/921,803  
Filing Date: August 03, 2001  
Appellant(s): O'DONNELL ET AL.

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David J. Gaskey  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 29 February 2008 appealing from the Office action mailed 4 October 2007.

**(1) Real Party in interest**

A statement identifying the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

4,624,097	Wilcox	11-1986
3,848,037	Harper	11-1974
WO 98/29326	Aulanko et al	7-1998

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 6 – 8, 17, 21 and 23 - 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilcox (4,624,097) in view of Harper (3,848,037).

Wilcox discloses a method comprising:

- Arranging a plurality of elongate load carrying members (24) in a selected arrangement,
- Coating the load carrying members with a single urethane coating (Col. 2, Line 43),
- Using a thermal polyurethane coating (32, Col. 3, Line 59),
- Coating the entire plurality of load carrying members with a single urethane coating (32),
- Coating an entire plurality of load carrying members with a single urethane coating (32),
- Wherein said plurality of elongate load carrying members are metallic (Col. 1, Lines 15 – 25); however,

though Wilcox is silent regarding his urethane coating containing a wax, Wilcox discloses the application of a fatty acid amide as a lubricant wherein the "... lubricant is present in the finished rope" (Col. 3, line 1). Wilcox offers the viability of other lubricants (Col. 3, line 60 – Col. 4, Line 4) generically known as waxes (Exhibit A).

Attention is directed to Harper who teaches a "silicone release agent" as prior art (Col. 1, line 46) whereby his inventive feature are "... surfaces free of ... mold release

agent, and having smooth ... wax-free... surfaces... which may be easily released from the mold" (Col. 2, Lines 13) by means of his inventive method to "... produce polyurethane moldings having surfaces that are totally ... wax-free" (Col. 3, Line 21).

Harper includes the use of silicone material as a treating (hydrophobic) material of a conventional mold that, while enabling "... easy removal of the molded article from the mold, (sic) the release agent advantageously adheres strongly to the mold but not to the molded article" (Col. 3, Line 1) due to an intermediary hydrophilic barrier layer (Col, 2, Line 58). The latter is subsequently removed by inexpensive, non-toxic and readily available aqueous solutions (Col. 4, Line 75).

It would have been obvious to one of ordinary skill in the art to modify the reference of Wilcox with the teaching of Harper to utilize a conventional mold release agent and mold in combination with the inventive barrier layer to promote the use of conventional technologies and materials while obtaining a wax-free surface by means of an intermediary, water soluble barrier layer for savings in costs, ease of sourcing and performance.

**Claims 16, 18 – 19, 20 and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilcox in view of Harper, as applied to Claim 6, and in further view of Aulanko et al (WO 98/29326).

**Re: Claims 16, 18 and 22**, Wilcox discloses his coating of his load carrying members as having a circular cross-section.

Harper teaches producing polyurethane moldings having wax-free surfaces.

Attention is directed to Aulanko et al who teach their polyurethane-based coating of their load carrying members having a rectangular cross-section (Figures 2 – 7, Page 4, Lines 10 – 30), for the features of smaller sheave diameters, uniform application of pressure on the sheaves as well as minimizing the sliding of the load carrying members.

It would have been obvious to one of ordinary skill in the art to modify the reference of Wilcox and Harper with the teachings of Aulanko et al for the benefits of reduced drive capacity and weight as well as prolonging the service life of the rope.

**Re: Claim 19**, Wilcox discloses a thermal polyurethane coating.

**Re: Claim 20**, Wilcox discloses a coating a plurality of load carrying members with a single urethane coating.

#### **(10) Response to Argument**

With respect to applicant's arguments to the prosecution of **Claims 6 – 8, 17, 21 and 23 - 26**, in particular the prosecution of **Claim 6**, applicant principally argues that the rejection of said claim is improper due to:

- a lack of *prima facie* case of obviousness in making the combination of the references of Wilcox and Harper, therein a use of hindsight reasoning,
- the destruction of the base reference, Wilcox, when making the combination,
- a lack of motivation to combine as either disclosed by Wilcox or taught by Harper, and
- the finished, modified product, should the combination(s) be made, would still comprise a urethane coating containing a wax.

With respect to appellant's arguments that the combination of the base reference, Wilcox, with Harper is impermissible in that it "... removes an intended feature from the reference, prevents the reference from achieving its intended result and provides no benefit to the Wilcox reference" (Page 3, final para.), the inventive feature of Wilcox is the manufacture of synthetic ropes using (then) "... conventional rope making techniques and equipment..." as a commercially viable alternative to the (then) standard ropes made from wire, on which a predominant number of rope manufacturing equipment was based (Col. 1, L. 40 - 45).

Consequently, Wilcox was disclosing an inventive embodiment of synthetic rope that was to be manufactured on existing rope making equipment, including an additional extrusion process (Col. 2, L. 53), and not require "... entirely new equipment ... using impregnation techniques" (Col. 1, L. 41).

Wilcox discloses further the use of fatty acid amides and "... other lubricants..." in the manufacture of his rope, whereby any such lubricant was "... present in the finished product" (Col. 3, L. 62) for which the appellant had filed on 17 October 2006 under Affidavit that such lubricant comprises a synthetic and/or natural occurring wax. The use of a lubricant is for the feature of releasability from molds as known in the art and reviewed in the specification of the instant invention. Hence, the urethane coating (Col. 1, L. 43 and Col. 3, l. 58) of Wilcox contained a lubricant of or related to a "wax".

Appellant emphasizes that Wilcox discloses a preference for HYTREL; however, Wilcox discloses the interchangeability of HYTREL with "... any suitable material having similar characteristics to HYTREL and in general can be a polyurethane..." among others (Col. 2, L. 42).

Again, the inventive feature of Wilcox is the use of existing rope making equipment in the manufacture of synthetic rope, whereby the use of lubricants for benefit of releasability from molds is of concern. Therefore, a lubricant (releasing agent) is introduced to a urethane coating for purpose of releasing the final product from its mold, yet it is not an inherent component of urethane.

Consequently, appellant's statement that "conventional polyurethane mixes include waxes" (Page 6, 3<sup>rd</sup> para.), as understood, is solely limited to mixes having releasing agent(s), in that polyurethane does not inherently include a wax.

Attention was directed to Harper who teaches the manufacture of molded polyurethane products wherein the concern for a "... wax-free surface on polyurethane moldings..." (Title) is addressed.

Harper teaches the (then) prior art in which the polyurethane product "... is prepared in a mold which is first coated with an oily, waxy fluororganic or silicone release agent" (Col. 1, L. 45) whereby the implication is made in view of Wilcox and the disclosure of the instant invention as to the technological evolution of subsequently introducing a release agent in the coating itself. Harper, however, as in the instant invention, sought a polyurethane surface free of residue attributable to the release

agent (Col. 2, L. 11 and L. 21), whereby Harper's interest lay in painting the finished product for which a wax-free surface for proper adhesion of the paint is critical.

Harper is silent with respect to polyurethane inherently having a wax and, in fact, teaches the then state of the art whereby a releasing agent (wax) is applied directly to the mold. Harper teaches his inventive application of a water soluble "barrier layer" intermediate of the release agent on the mold and the surface of the polyurethane product (Col. 2, L. 44 - 48), which can be subsequently removed by washing, yielding a wax-free surface of a polyurethane product not containing a wax (Col. 37 - 44).

As for the destruction of the reference of Wilcox by the modification of Harper, Harper teaches the feasibility of utilizing a polyurethane coating that does not contain a release agent (wax) while not compromising releasability yet affording a wax-free, finished surface.

As for a lack of motivation to combine and improper hindsight reasoning, a wax-free surface is advantageous, for instance, as taught by Harper, for the benefit of painting the finished surface. The marking (coding) or painting of cables, such as for indicating their key materials of construction, operating capacities, inventory coding, etc., is well within the knowledge of one having ordinary skill in the art.

With respect to improper hindsight reasoning, the application of teachings found in related, pertinent art would lead one having ordinary skill in the art to make the combination for obvious commercial benefits as referenced above. Simply the silence with respect to specific feature(s) of a base reference does not preclude the applicability of teachings from secondary references.

With respect to applicant's arguments to the prosecution of **Claims 24 - 26**, appellant argues that the reference of Wilcox cannot be modified to include metallic load carrying members, which is refuted by one having ordinary skill in the art wherein metallic load carrying members afford retention of strength and, as supported by previously cited prior art of record, resistance to fire, for the benefits of performance and safety.



Art Unit: 3654

With respect to **Claims 16, 18 – 19, 20 and 22**, applicant has not refuted the teaching of Aulanko et al, but rather reiterated the lack of anticipation and teachings of the cited prior art of record with respect to the independent claims.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Stefan Kruer/

Examiner, Art Unit 3654

26 March 2008

Conferees:

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